

INFECTIOUS DISEASES

BACTERIAL MENINGITIS IN INFANTS

A retrospective study of 80 infantile patients (ages 30-365 days; 47 male, 33 female) with culture-proven bacterial meningitis seen over a 16 year period (1986-2001) is reported from Taiwan. Two had post-neurosurgical meningitis, 16 were nosocomial cases, and 62 the community-acquired spontaneous form. The most prevalent pathogens were *Salmonella* species, *Streptococcus agalactiae*, *Escherichia coli*, and *Haemophilus influenzae*. *Salmonella*, *E coli* and *H influenzae* occurred more often in older infants, whereas *S agalactiae* were more prevalent in younger infants. A decrease in *Salmonella* cases from 27% in the first 8 years of the study to 9% in the second 8 years was accompanied by a proportional increase in *E coli* meningitis in the second half of the study. Presenting clinical manifestations included fever in 76 patients, disturbed consciousness in 49, seizures in 45, bulging fontanelle in 26, neck stiffness 11, and gastrointestinal disorders 24. Mortality for both periods was 11%, and 43% had poor outcomes. *H influenzae*, *S pneumoniae*, and *Salmonella* species meningitides were complicated by a high prevalence of neurologic disorders (subdural empyema [30], hydrocephalus [25 cases], and cerebral infarctions [7]). Initial changing levels of consciousness were independently associated with treatment failure. Of 42 patients with meningitis caused by Gram-negative bacilli and *Hemophilus* species, 22 had antibiotic-resistant strains. Combined antibiotic and dexamethasone therapy was used in 14 patients, 9 of whom had a poor outcome. (Chang C-J, Chang W-N, Huang L-T et al. Bacterial meningitis in infants: the epidemiology, clinical features, and prognostic factors. *Brain Dev* 2004;26:168-175). (Respond: Cheng-Hsien Lu MD, Department of Neurology, Chang Gung Memorial Hospital-Kaohsiung, 123 Ta Pei Rd, Niao Sung Hsiang, Kaohsiung, Taiwan).

COMMENT. In the United States the 3 most common causative organisms causing infantile meningitis were *H influenzae* (64%), *S pneumoniae* (12%), and *N meningitidis* (11%) (Feigin RD et al. 1992). Since 1988 when Hib conjugate vaccines were introduced, the incidence of Hib disease in infants and young children has declined by 99%. Invasive Hib disease now occurs primarily in underimmunized infants too young to have completed the primary immunization series. (AAP Red Book 2000). The emergence of resistant strains presents a challenge to infectious disease specialists and the choice of optimum antibiotic therapy. Dexamethasone use was not associated with a statistical improvement in outcome in the Taiwan study.

INFECTIONS IN ATAXIA-TELANGIECTASIA

Immunodeficiency and infections were determined in 100 consecutive patients with ataxia-telangiectasia (A-T) seen at the Johns Hopkins Ataxia-Telangiectasia Clinical Center. Immunoglobulin (Ig) deficiencies were common: IgG4 in 65%, IgA in 63%, IgG2 48%, IgE in 23%, and IgG in 18%. Lymphopenia occurred in 71% of patients, with reduction of B-lymphocytes in 75%, CD4 T lymphocytes in 69%, and CD8 T lymphocytes in 51%. Increasing age was not associated with increased frequency or severity of immune